## Long Range Financial Model

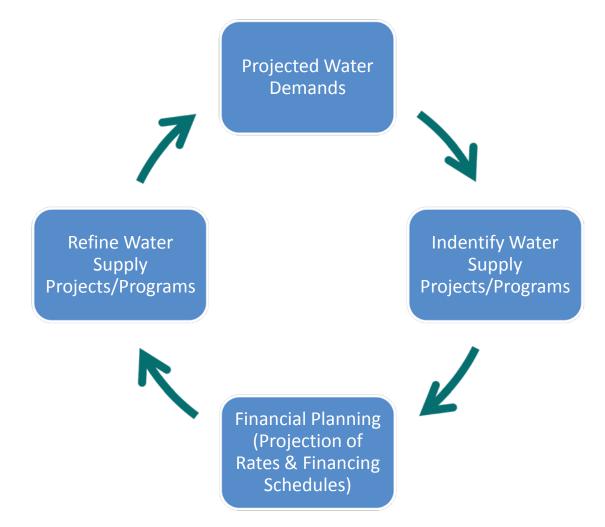


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# Linkage Between Water Supply & Financial Planning



## What is the Long Range Financial Model?

- Agency view wholesale only
- "if, then scenarios"
- All Costs: Based on Restructured Agreement
- Cash flow, financing, debt service, and water rates by aqueduct
- 30 year horizon (shorter available)



#### Model Uses

- The Model is a planning tool
- Helpful in making relative comparisons of scenarios
- Allows sensitivity analysis of inputs' effects on rates
- Input into contractors' retail rate models

#### **Model Limitations**

- Deliveries will vary from assumptions
- Model uses estimates in Capital Project costs
  - Estimates have varying resolution
- Projects will change over time as actual demand and other factors become known

## Near and Far Sighted Planning

1 Year 5 Years 30 Years

Budget

**Forecast** 

UWMP
Planning
Estimates

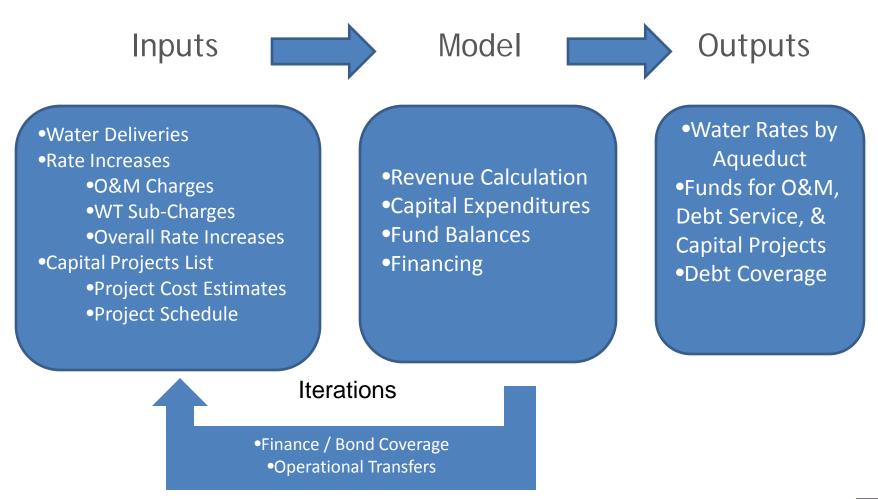




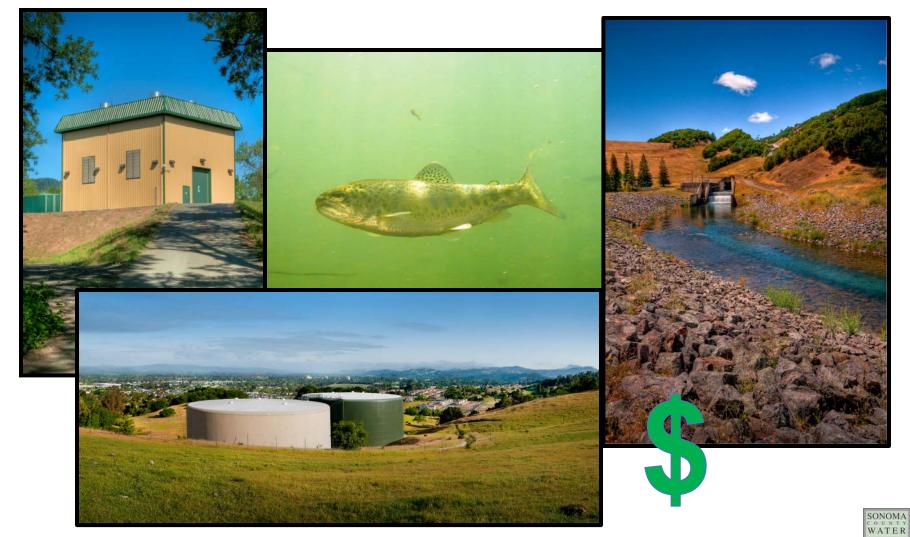




#### How the model works



## Strategy, Projects, & Finance Integrated Planning & Implementation



#### Five Year Project List

DRAFT Project Name	Category	Construction Cost % of Project	Total Project Cost ( Dollars) Common	Storage		Petaluma	Sonoma			Construction	
					Santa Rosa			North Marin	Totals	FY Start	Active
Biological Opinion to Common, 2010	Biological Opinion	100%	207,100	(	0	0		0 0	207,100	2010	Yes
Rogers Creek Fault Crossing Mitigation	Haz Mitigation / Reliability	100%	0	(	751,972	0		0 0	751,972	2011	Yes
Biological Opinion to Common, 2011	Biological Opinion	100%	1,200,000	(	0	0		0 0	1,200,000	2011	Yes
Flow Monitoring	Haz Mitigation / Reliability	100%	500,000	(	0	0		0 0	500,000	2012	Yes
Forestville Storage Tank	Capacity / CIP Planning	86%	830,580	(	0	0		0 0	830,580	2012	Yes
Petaluma Aqueduct Condition Assessment	Capacity / CIP Planning	50%	0	(	0	0		0 0	0	2012	No
Air Valves - O&M Replacements	Haz Mitigation / Reliability	33%	740,000	(	0	0		0 0	740,000	2012	Yes
Mirabel Dam Response Plan	Haz Mitigation / Reliability	100%	175,000	(	0	0		0 0	175,000	2012	Yes
Biological Opinion to Common, 2012	Biological Opinion	100%	230,000	(	0	0		0 0	230,000	2012	Yes
Kastania Pipeline Relocation (Caltrans)	Capacity / CIP Planning	75%	0	900,000	0	0		0 0	900,000	2013	Yes
Sonoma Aqueduct Condition Assessment	Capacity / CIP Planning	75%	0	,	) 0	0		0 0	0	2013	No
Biological Opinion to Common, 2013	Biological Opinion	100%	0	(	) 0	0		0 0	0	2013	Yes
Mirabel Surge Tank Project - Tank No. 1	Haz Mitigation / Reliability	100%	900,000	(	) 0	0		0 0	900,000	2013	Yes
Cotati-Petaluma Anode Replacements	Haz Mitigation / Reliability	100%			) 0	250,000		0 0	250,000	2013	Yes
Cotati 3 Tank Recoat	Haz Mitigation / Reliability	94%		(	) 0	3,500,000		0 0	3,500,000	2013	
System-wide Meter Replacements	Haz Mitigation / Reliability	100%	1,200,000	0		0	(		1,200,000	2013	Yes
Santa Rosa Reliability Pipeline Sections 1, 2 & 3 (Wohler to RailRd Sq)	Capacity / CIP Planning	32%				0		0 0		2014	_
Santa Rosa Aqueduct Cathodic Protection	Haz Mitigation / Reliability	83%		(	1,200,000			0 0	1,200,000	2014	_
Air Valves - Phase 2 Capital	Haz Mitigation / Reliability	80%			,,				1,000,000	2014	
Isolation Valves First Two Years	Haz Mitigation / Reliability	50%							1,000,000	2014	
Russian River Crossing	Haz Mitigation / Reliability	90%	,,						1,560,000	2014	
Biological Opinion to Common, 2014 (Fish Screen/Ladder)	Biological Opinion	94%	,,			_			5.165.000	2014	
Dry Creek Habitat Enhancement (Corps) Mile 4	Biological Opinion	70%	-,,		) (	0			1,000,000	2014	
Electrical & Pump Redundancy Upgrade to Sonoma Booster Pump Station	Haz Mitigation / Reliability	100%	,,				3,500,00		3,500,000	2014	_
Mirabel Surge Tanks	Haz Mitigation / Reliability	86%					(		2,800,000	2014	
Mirabel Generators (repayment)	Capacity / CIP Planning	11%	,,	-	_	-			1,529,978	2015	
RR-Cotati Int. Cathodic Protection	Haz Mitigation / Reliability	83%							1,200,000	2015	
Mirabel to Cotati Pipeline DESIGN ONLY	Capacity / CIP Planning	100%	· · · · · · · · · · · · · · · · · · ·		) (	,		0 0	0		
Kawana to SBS Pipeline-Early Pre-construction	Capacity / CIP Planning	59%				_			1,534,500	2015	
Mark West Creek Crossing	Haz Mitigation / Reliability	90%				-			1,500,000	2015	
Biological Opinion to Common, 2015	Biological Opinion	100%				_		0 0	1,300,000		
Mirabel Surge Tank Project - Tank No. 2	Haz Mitigation / Reliability	100%			) 0				1,000,000	2015	
Dry Creek Habitat Enhancement (Corps) Mile 5	Biological Opinion	70%	,,						1,000,000	2015	
Collector 6 Chlorine Line	Haz Mitigation / Reliability	80%						0 0	500,000	2015	_
Kastania Tank Recoat	Haz Mitigation / Reliability	92%	,	2,400,000	,	0	(	0	2,400,000	2015	
Aqueduct Condition Assesements	Capacity / CIP Planning	32%				-	300,00		940,000	2016	
LHM Program Schematic Design/CEQA	Haz Mitigation / Reliability	12%					75,00		375,000	2016	
RDS Liquefaction Mitigation	Haz Mitigation / Reliability	84%			,				1,880,000	2016	
Collectors 3 and 5 Liquefaction Mitigation	Haz Mitigation / Reliability	73%						0	1,200,000	2016	_
Collector 6 Liquefaction Mitigation	Haz Mitigation / Reliability	67%						0 0	600,000	2016	
Biological Opinion to Common, 2016	Biological Opinion	100%	,					0 0	000,000	2016	
Dry Creek Habitat Enhancement (Corps) Mile 6	Biological Opinion	70%	-						1,000,000	2016	
Ralphine Tanks - Flow Thru Conversion	Haz Mitigation / Reliability	100%		1,500,000	,	_	(		1,500,000	2016	_
Anadel-Sonoma Pipeline Section 4 (Madrone-Maxwell)	Capacity / CIP Planning	80%					14,100,26		14,100,266	2016	
Biological Opinion to Common, 2017	Biological Opinion	100%						0 0	14,100,266	2017	_
Mirabel Surge Tank Project - Tank No. 3	Haz Mitigation / Reliability					_			1,100,000	2017	



### Assumptions

- O & M Costs escalate linearly
- Model includes all existing debt
- Part 4 of the Restructured Agreement is used to calculate all charges
- Year 1 deliveries are based on the most recent year's actual deliveries and extrapolated to converge with planned projections.

## Inputs and Outputs of Model

#### • Inputs:

- Forecasted Deliveries
- Capital Projects (Estimated Cost, Timeline)
- Rate increases/decreases
- Financing

#### Outputs:

- Revenue streams in future years
- Fund balances in future years
- Bond Coverage Ratios/Capacity to Borrow



## Long Range Financial Model



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